CLAIMS

1. A magnetic recording medium comprising a non-magnetic support, at least one primer layer formed on one surface of the non-magnetic support, a magnetic layer formed on the primer layer, and a backcoat layer formed on the other surface of the non-magnetic support, wherein the non-magnetic support has a thickness of 2.0 μm to 7.0 μm, the magnetic layer has a thickness of 0.30 μm or less, and (P_1-P_0) is 30 nm or less and (P_1-P_{20}) is 5 nm or less in which P_0 is an averaged height of projections of the magnetic layer, and P_1, P_2, ---- and P_{20} are heights of the highest, the second highest, --- and the 20th highest projections of the magnetic layer, respectively, when they are measured in a field of view of 350 μm x 260 μm on the magnetic layer.

2. The magnetic recording medium according to claim 1, wherein (P_1-P_0) is from 5 nm to 30 nm.

3. The magnetic recording medium according to claim 1, which is recorded and read with a reading head comprising a magnetoresistance effect element.

4. The magnetic recording medium according to claim 1, wherein said magnetic layer has a coercive force of 120 to 320 kA/m, and a product of a residual magnetic flux density in the machine direction of said magnetic layer and a thickness of said magnetic layer is from 0.0018 μTm to 0.06 μTm.

5. The magnetic recording medium according to claim 1, wherein said non-magnetic support has a Young's modulus in a machine direction of at least 6.08 GPa (at least 600 kg/mm^2), and a ratio of a Young's modulus MD in the machine direction to a Young's modulus TD in a transverse direction (MD/TD) is from 0.6 to 1.8.